Work Orde December-11-13	er ID 109979 8:58:53 AM					Page 1					
Revision ID:	D3601-1 Radius Block	4	Accept	*N900	040	100)*	Setup	Start Stop	17	S1* S2*
	12/11/13 Start Qty: 80.00 12/24/13 Req'd Qty: 80.00	*80* *80*		Cust Item :						1.0	
Approvals:	Process Plan:M	Date: 13-12-11	Tooling:	D	ate:			Run	Start	*N	R1*
	QC:		SPC (Y/N):	D	ate:				Stop	*N	R2*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accep Qty	t Rej Qty		Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr										
D3601	Rev A		0.00								
100 Shear	SHEAR		0.00				iO	Æ	9		S\$ 13-12-
Shear	Memo		0.00				10	<			7701316
Shear 110 *110*	blanks 9.00 HAAS CNC VERTICA	" long +/- 0.030"Note: 1 blar L MACHINING #1	nk makes 8 pieces	and 13/12	112		<i>Ф \(\lambda \)</i>	•	(Pero		
HAAS 1	Memo		0.00				__/_			-	
HAAS CNC vertical	machine #1 1- Mill as p	er Folio FA682 Rev: <u>A4</u>	& Dwg D3601 Rev:	<u>#</u> _							
*120 *120*	QC2- Inspect parts off n	nachine FAI/FAIB	0.00	m/13/12	117		84	. <i>6</i>	रे र		J.H.
QC	Memo		0.00							7	JSNAO3,
Quality Control									,	de azuenssy	mierolzweozin
									Davolo		

DQA:			Date:						_				TQAC*
0.4.01			D			WORK ORDER NON-	-CC	ONFO	RMANCE / U			–	AEROSPACE
QA Closed:			Date:							V	ork Order up	odate only	
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
	_					Rework]		Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	No.					Scrap	1	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	-		·			Use-as-is	1		noforming	Finishing		re/Packaging	Other
NCR I	No					Suspected Unapproved			Large Fab	Composite		Supplier	
Post					Docc	rintion of work order undate		Initial	Λ α	tion	Cian 0		
Root Cause		Date	Step	Qty	Desci	ription of work order update or non-conformance	1	initiai iief Eng	l .		Sign & Date	Verification	OC Inchestor
Design	\sqcap	Date	step	Qty		or non-comormance	CI	ilei ciig	Desci	ription	Date	verification	QC Inspector
Doc/Data	H												
Equip/Tooling	Н												
Handling/Pre	Н					•	1						
Material	П												
Operator													
Offset/Setup	П												
Process													
Supplier												1	
Training													
Transport												-	
Unapproved													
							FAI	ULT CAT	TEGORY				
Landi	ng G	ear				General		_			_		
	L	Bending				Bend		Folio/F	Program		Outside Dim	ensions	Pressure/Forced
	Ц	Centre No	t Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
	Щ	Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorred	ct _	Temperature/Cure
	_	Crimp/Kin	ık/Ripple	/Wave	<u> </u>	Burrs	L	Inspect	ion Incomplete/U	nqualified	Part Lost/Mi	issing	Weld
	\vdash	Cuffs			-	Contamination	<u></u>	Instruct	tions Incomplete/	Unclear	Part Moved		Wrong Stock Pulled
	—	Crushing				Countersink	$ldsymbol{le}}}}}}$	-	ned/off center		Positioned V	_	
	_	Heat Trea			<u> </u>	Cut Too Short		Mislabe			Power Loss/	Surge	Other
į	\vdash	nspection	•	Tube		Drawing	L	Misread					
	_	Marks/Ch			<u> </u>	Drill Holes		Off-set					
	י	Turning So				Finish		Out of (Calibration				
		TW	ist in Tub	e		Fit/Function		Out of 9	Sequence				

150 (Hand Finishing

84 MB13-1280

Work Ord December-11-13					*1	099	79*						Page	2
Revision ID:	D3601-1				Accept	*	N900	040	100)* \$	Setup Star Stop	IV	S1*	=
Item Name: Start Date: Required Date: Reference:	Radius Block 12/11/13 12/24/13	Start Qty: 80.00 Req'd Qty: 80.00		*80* *80*			Cust Item II	D:			Stop	′ *N	S2*	
Approvals:	Process Pla	an:	Date:		Tooling:		Da	ite:	_	F	tun Star	~1/1	R1*	
	QC:		Date:		SPC (Y/N):		Da	ite:			Stop	*N	R2*	1
Sequence ID/ Work Center II)	Operation Description			Set Up/ Run Hou	ırs	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	-
130		QC8- Inspect parts - seco	nd check		0.00									
1 20 QC Quality Control		Memo			0.00	F.K.	13/12	//7		84	_Ø_			
140					0.00									
1 <u>4</u> 0		Small Fab			0.00					84	26	13.12	-30	
Small Fab Small Fab		Memo 1-Tumble			0.00									
Smail Fao			rough edges a	after tumbling	3									
150		Chemical Conversion Co	at per QSI005	4.1	0.00									

0.00

Memo

DQA:		Date:										TQ AC
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE	w	ork Order up	odate only	AEROSPACE
Work Orde	·r·			·	DISPOSITION			AGAIN	NST DE	PARTMENT	/PROCESS	
Part N	lo				Rework Scrap Use-as-is Suspected Unapproved			Skid-tube Crossto Machining Small I noforming Finish Large Fab Compos	Fab	-1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Desci	ription of work order update		nitial	Action		Sign &		
Cause	Date	Step	Qty		or non-conformance		ief Eng	1		Date	Verification	QC Inspector
Design			1,			<u> </u>		3 3331.78.311			Vermound	QO MISPECTO!
Doc/Data												
Equip/Tooling					•							
Handling/Pre												
Material								 - -				
Operator												
Offset/Setup												
Process												
Supplier												
Training												
Transport												
Unapproved												
	······································	I				FAI	ULT CA	regory		I	L	
Landir	ng Gear				General							· · ·
ſ	Bendin	g			Bend		Folio/F	rogram ·		Outside Dim	ensions	Pressure/Forced
	Centre	- Not Conce	ntric		BOM/Route		Grain	Ŭ		Over/Under		Set-up
<u> </u>	Cracks				Broken/Damage/Defect		 Hardwa	ire		Part Incorred	}	Temperature/Cure
	Crimp/	Kink/Ripple	e/Wave		Burrs		1	ion Incomplete/Unqualified		Part Lost/Mi	ssing	Weld
<u> </u>	Cuffs	, ,,			Contamination		i i	tions Incomplete/Unclear		Part Moved		Wrong Stock Pulled
	Crushir	ng			Countersink		4	ned/off center		Positioned V	∟ Vrong	
	Heat Tr	_			Cut Too Short		Mislabe			Power Loss/		Other
	_	ion Strip in	Tube		Drawing		Misread					
	─	Chatter			Drill Holes		Off-set					
		g Sequence	!		Finish		ł	Calibration				
	Wave/	Twist in Tu	be		Fit/Function		1	Sequence		· · · · · · · · · · · · · · · · · · ·		

Work Orde	r ID 1	09	979)
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109979

Page 3

December-11-13 8:58:53 AM Accept Item ID: D3601-1 *N900040100* Setup Start **Revision ID:** Stop **Item Name:** Radius Block **Start Date: *80*** 12/11/13 **Start Qty:** 80.00 **Cust Item ID:** Required Date: 12/24/13 Rea'd Otv: 80.00 *****20* **Customer:** Reference: Run Start Process Plan: Date: ___ Tooling: **Approvals:** _____ Date: Stop Date: SPC (Y/N): QC: Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Insp. Reject **Work Center ID** Description Qty **Qty** Code Number **Run Hours** Stamp 160 QC3- Inspect Part Finish 0.00 DAS *160* B-12-30 OC 0.00 Memo Quality Control Identify as per dwg & Stock Location: 57056 170 *170* Packaging 0.00 Memo Packaging 180 QC21- Final Inspection - Work Order Release 0.00 *120* QC 0.00 Memo **Quality Control**

DQA:			Date:						_				TQAR"
QA Closed:			Date:			WORK ORDER NON-	-C(ONFO	RMANCE / UF		Vork Order u	ndate only	AEROSPACE
		•				DISPOSITION						•	
Work Orde	er:					DISPOSITION		Ì		AGAINST	EPARTMENT	/PROCESS	
						Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part I	۸o. <u> </u>					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR I	No					Suspected Unapproved			Large Fab	Composite		Supplier	
Root					Desci	ription of work order update		Initial	Acti	ion	Sign &		
Cause		Date	Step	Qty		or non-conformance	ı	nief Eng		iption	Date	Verification	QC Inspector
Design								<u>v</u>		<u> </u>			
Doc/Data													
Equip/Tooling							ŀ						
Handling/Pre													
Material													
Operator	Ш												
Offset/Setup							i						
Process													
Supplier	Ш												
Training													
Transport													ŀ
Unapproved													
							FA	ULT CAT	regory				
Landi	ng Gea	ır			_	General		-		_	_		
	Be	nding				Bend	L	Folio/P	rogram	Ĺ	Outside Dim	ensions	Pressure/Forced
	Щ ^{Се}	ntre No	t Concer	ntric	<u> </u>	BOM/Route		Grain			Over/Under	tolerance	Set-up
		acks				Broken/Damage/Defect	<u> </u>	Hardwa	re	L	Part Incorre	ct _	Temperature/Cure
		•	k/Ripple	/Wave	<u> </u>	Burrs	L	Inspecti	ion Incomplete/Un	qualified	Part Lost/M	issing	Weld
	⊢	ffs			<u> </u>	Contamination	L	4	ions Incomplete/U	Inclear	Part Moved		Wrong Stock Pulled
	_	ushing			<u> </u>	Countersink	-	-i	ned/off center		Positioned V	Vrong	_
	\vdash	at Trea			<u> </u>	Cut Too Short	L	Mislabe	eled		Power Loss/	Surge	Other
	_		Strip in	Tube		Drawing	L	Misread					
	⊢	arks/Ch				Drill Holes	L	Off-set					
	_		equence			Finish	L	4	Calibration				
	l lw	ave/Twi	ist in Tub	e e		Fit/Function	1	Out of 9	Sequence				

Picklist Print

December-11-13 8:58:58 AM

Page 1

Work Order ID: 109979

109979

Parent Item:

D3601-1

D3601-1

Parent Item Name: Radius Block

Start Date: 12/11/13

Required Date: 12/24/13

Start Qty: 80.00

Required Qty: 80.00

Comments:

IPP Rev:A New Issue 07-03-28 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B00750X00.1		Purchased	No				f	35.4200		6			
M6061T6	SB00750)X00 1:	25						**		ا گ	SJ 13.	-12-16

M606116B00750X00 125

6061-T6 Bar .750 x .125

Location	Loc Oty	Loc Code		
MAT049	35.42			
M126043	31.42			
M126915	4		//	4

* NOT Pulled

DQA:	•	_ Date:												TQAR [*]
QA Closed:		Date:			WORK ORDER NON-	-C(ONFO	RMANCE / UP		Mor	k Order up	udata anlu		AEROSPACE
QA Closed.		Date.								VVOI	k Order up	date only	Ш	
Work Orde	er:				DISPOSITION				AGAINST	DEP	ARTMENT	PROCESS		
					Rework			Skid-tube	Crosstube			Water Jet		Engineering
Part N	lo.				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	_	Quality
					Use-as-is		Thern	noforming	Finishing			e/Packaging	\vdash	Other
NCR N	lo				Suspected Unapproved			Large Fab	Composite			Supplier	\vdash	
		· · · · · · · · · · · · · · · · · · ·	1					<u> </u>		····				
Root				Desc	ription of work order update		Initial	Actio			Sign &			
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	otion		Date	Verificatio	n	QC Inspector
Design	\dashv													
Doc/Data										ŀ				
Equip/Tooling											i			
Handling/Pre														
Material								[
Operator			. :											
Offset/Setup Process		-												
Supplier			ŀ										!	
Training										1				
Transport														
Unapproved														
	· · · · · · · · · · · · · · · · · · ·	 				FA	ULT CAT	regory						
Landir	ng Gear				General									
	Bending				Bend		Folio/F	rogram		\Box	Outside Dim	ensions		Pressure/Forced
	Centre N	Not Conce	ntric		BOM/Route		Grain				Over/Under	tolerance		Set-up
	Cracks				Broken/Damage/Defect		Hardwa	ire		P	art Incorrec	it		Temperature/Cure
	Crimp/K	ink/Ripple	e/Wave	<u> </u>	Burrs		Inspect	ion Incomplete/Unq	_l ualified		art Lost/Mi	ssing		Weld
	Cuffs				Contamination		Instruct	ions Incomplete/Un	nclear		art Moved			Wrong Stock Pulled
	Crushing	g			Countersink		Misalig	ned/off center		F	ositioned W	/rong		-
	Heat Tre	eat			Cut Too Short		Mislabe	eled			ower Loss/S	Surge		Other
		on Strip in	Tube		Drawing		Misread	t	•					
	Marks/C				Drill Holes		Off-set			_				
		Sequence			Finish		Out of (Calibration		_				
	Wave/T	wist in Tul	ne	1	Fit/Function	1	Out of	Seguence						

DART AEROSPACE LTD Work Order: /09979

Description: Radius Block Part Number: D3601-1

Inspection Dwg: D3601 Rev: A Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.75	+/-0.030	.748	/		Verm	11-06
0.375	+/-0.010	.375			11	
0.375	+/-0.010	.375	_		1/	
Ø0.257	+0.006/-0.001	Ø.24D			1-	
0.357	+/-0.010	.352			4	
R0.38	+/-0.030	R. 375		_	11	
0.80	+/-0.030	.800			٠,	
0.3 x 45°	+/-0.010 x 0.5°	.037×45°	/		11	

Measured by:	m	Audited by:	FK	Preliminary Approval:	
Date:	13/12/17	Date:	13/12/18	Date:	

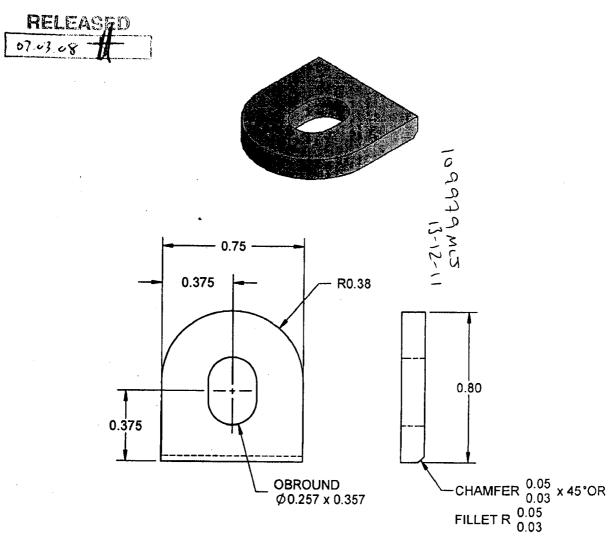
Rev	Date	Change	Revised by	Approved
Α	07.05.08	New Issue	KJ/JLM	11
В	11.08.22	Dimensions updated	KJ 46	1 2 2 2

DQA:			Date:			TART									
QA Closed: Date:						WORK ORDER NON-CONFORMANCE / UPDATE Work Order update only Work Order update only									
Work Order:									AGAINST DI	DEPARTMENT/PROCESS					
Part No.						Rework Scrap Use-as-is Th			Skid-tube Crosstube Small Fab Thermoforming Finishing			Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other		
NCR No.						Suspected Unapproved		Large Fab Composite]	Supplier			
Root Cause		Date	Step	Qty	Desci	ription of work order update or non-conformance	l .	Initial nief Eng	Acti Descr		Sign & Date	Verification	QC Inspector		
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved						·					Date	Vermeation	QC IIIspectol		
							FAI	ULT CAT	regory						
Landi	Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence					General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Folio/Program Grain Hardware Inspection Incomplete/Unqualified Instructions Incomplete/Unclear Misaligned/off center Mislabeled Misread Off-set Out of Calibration			Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/S	tolerance ct ssing Vrong	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other		
	Wave/Twist in Tube					Fit/Function		Out of Sequence							

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH



DESIG	CB1	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA						
CHEC	(ED	APPROVED	D3601	REV. A SHEET 1 OF 1					
DATE	07.	.02.13	RADIUS BLOCK	SCALE 2:1					
REV		DATE	DESCRIPTION						
A		07.02.13	NEW ISSUE						



D3601-1 RADIUS BLOCK

NOTES:
1) MATERIAL: ALUMINUM 5052-H32 SHEET, 0.125 THICK PER QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32S.125) OR ALUMINUM 6061-T6 SHEET, 0.125 THICK PER QQ-A-250/11 OR AMS 4025/4027

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) IDENTIFY WITH DART P/N "D3601-1" USING FINE POINT PERMANENT INK MARKER
5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
6) BREAK ALL SHARP EDGES 0.005 TO 0.050 MAX

DQA:	: Date:														
				WORK ORDER NON-CONFORMANCE / UPDATE											
QA Closed:			Date:					,			W	ork Order up	odate only		
Work Order:						DISPOSITION	AGAINST DEPARTMENT/PROCESS								
						Rework			Skid-tube Crosstube				Water Jet	Engineering	
Part No.						Scrap		!	Machining	Small Fab		Pro	d. Eng. Coor.	Quality	-
						Use-as-is		Thern	noforming	Finishing		Rec/Sto	re/Packaging	Other	\square
NCR 1	No					Suspected Unapproved Large Fab Comp				Composite	Supplier Supplier				
Root					Desci	ription of work order update		nitial	Ac	tion		Sign &			
Cause	D	ate	Step	Qty		or non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	QC Inspec	tor
Design				:									-		
Doc/Data	Ц	ĺ													
Equip/Tooling	_														
Handling/Pre	\square	:													
Material	\square														
Operator	\square													-	
Offset/Setup	\dashv														
Process Supplier	\vdash														
Training	\dashv						l								
Transport	H								·						
Unapproved	H														
FAULT CATEGORY															
Landi	ng Gear					General					-				
	Bending					Bend		Folio/P		Outside Dimensions			Pressure/Force	ed	
	Cen	Centre Not Concentric				BOM/Route		Grain				Over/Under tolerance		Set-up	
	Cracks					Broken/Damage/Defect		Hardware				Part Incorred	t [Temperature/0	Cure
	Crimp/Kink/Ripple/Wave					Burrs		Inspection Incomplete/Unqualified				Part Lost/Mi	ssing	Weld	
	Cuf				Ш	Contamination		Instructions Incomplete/Unclear				Part Moved		Wrong Stock Pi	ulled
	Crushing					Countersink		Misaligned/off center				Positioned Wrong			
	Heat Treat					Cut Too Short		Mislabeled				Power Loss/	Surge	Other	
	Inspection Strip in Tube					Drawing	_	Misread							
	Marks/Chatter					Drill Holes	<u> </u>	Off-set							
	Turning Sequence Wave/Twist in Tube					Finish		i	Calibration						
	wa	ve/Twi	st in Tub	e		Fit/Function	L	Out of S	Sequence						